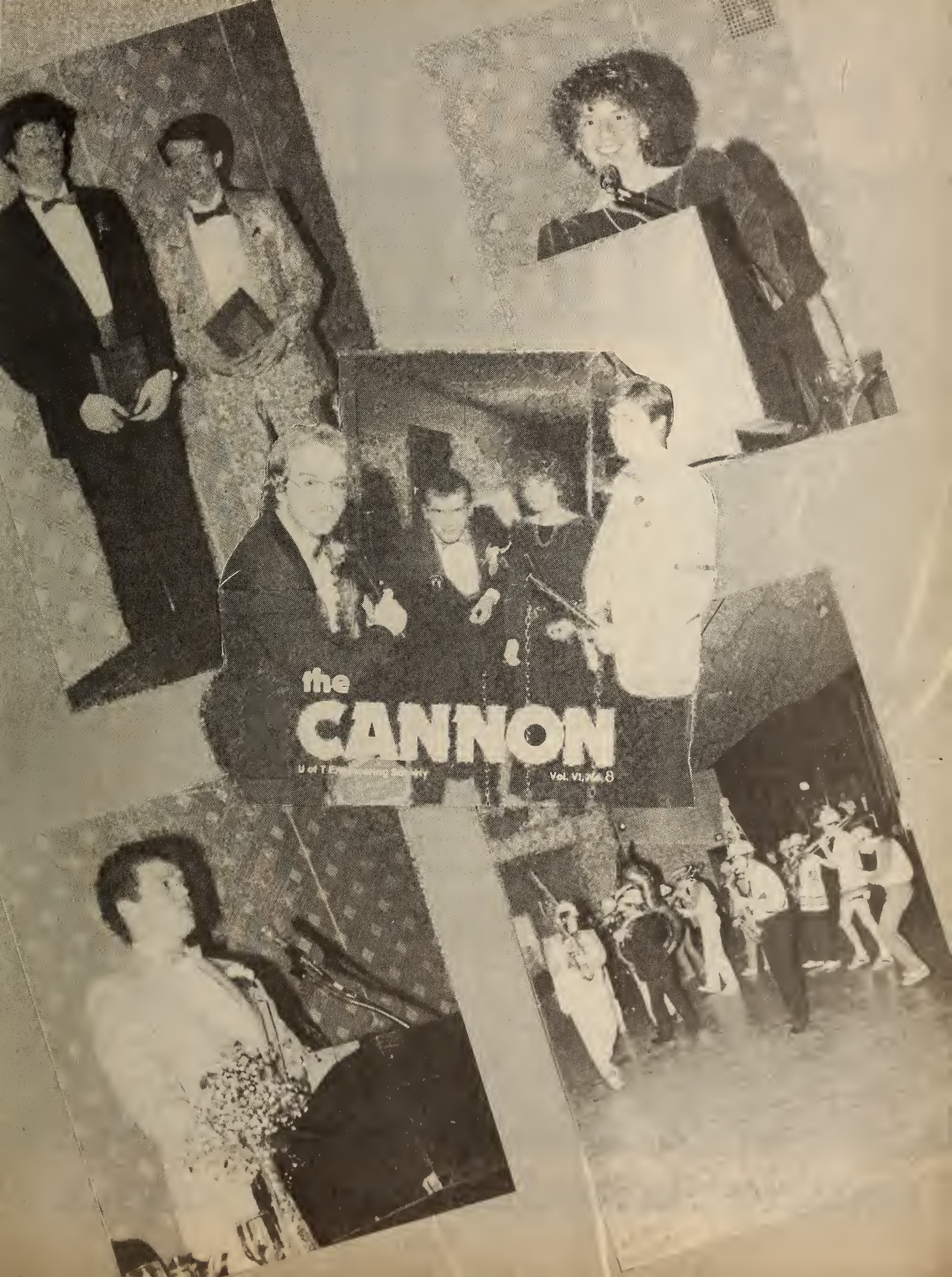
the
CANNON

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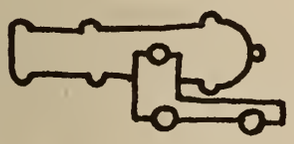
the CANNON

U of T Engineering Society

Vol. VI, No. 8



THE CANNON is a publication of the University of Toronto Engineering Society. It is published monthly to announce Eng Soc events, discuss faculty and university matters, and present technical information of interest to Engineering undergraduates. Subscriptions are available, call Ella at 978—2917. Anyone interested in helping with *THE CANNON* is most welcome.

THE CANNON encourages submissions; please type or write legibly. Comments on *THE CANNON* or articles appearing in it are appreciated. The editor reserves the right to edit for brevity.

ISSN 0711-4370

Editor's Comments

The changing of the guard: elections, by-elections, re-held elections. leadership races, we seem surrounded by ambitious hopefuls. Along with all this racing, there is that other rite of spring, the thank yous and goodbyes.

This issue of *the Cannon* is of course devoted to both these topics. By the time you read this, the Engineering Society will finally have a President for 1984-85 ready and eager to tackle the job. Though the elected officers usually have the highest profiles (if only because they campaign in all the classes in order to be elected), there are many other important positions in the Engineering Society which are soon to be filled. For details, see the article by Lynette Fairweather, our new Vice-President: Administration. For those readers in first, second and third year (those in fourth year have a lot of nerve reading this with a thesis to be done), April is the time to think of summer and even beyond it to next fall. Now that you know you can make it through the drudgery of school work, why not plan for more fun and satisfaction next year?

As for thank yous, a number of outstanding achievers are recognized in this issue. Their particular accomplishments vary but there is one common factor: each became involved in something other than course work alone. The successes at the province-wide level in the OEDC and nation-wide in the Honeywell Futurists Competition deserve special congratulations.

My personal thank you list is short (a sigh of relief from the reader). There was a small group of people who contributed to this paper in a variety of ways all year. As the sayng goes, you know who you are — give yourself a pat on the back and an extra one from me. The coverage of technical issues may have been lacking and the publication schedule never meshed conveniently with the important events, but this year had a lot of good moments too.

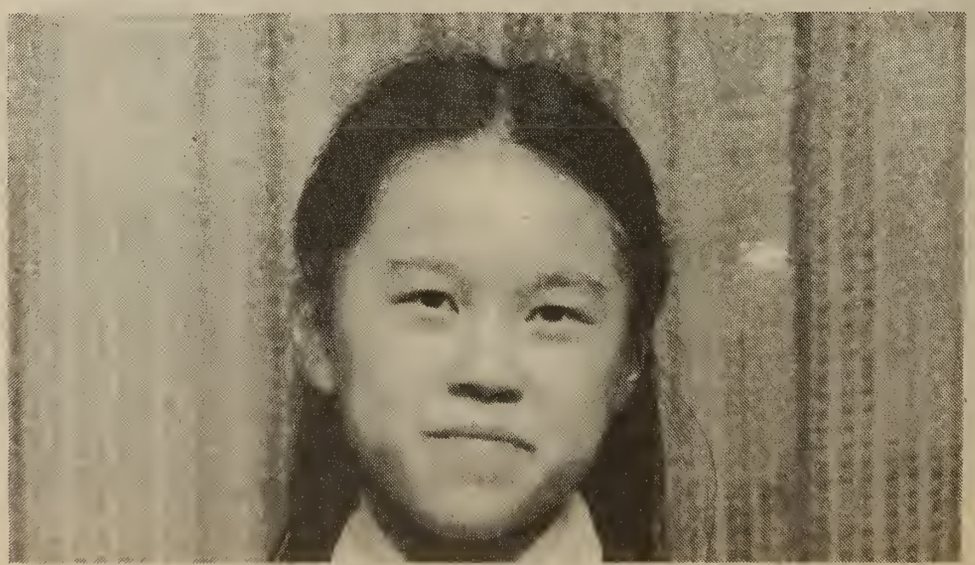
To my soon-to-be-elected successor, stick to your deadlines and pray for good photos, a great staff and no rain on delivery days.

Canadian Champ in our Midst

Once again, excellence in U of T Engineering has been recognized in a nation-wide competition. Congratulations are extended to Ping Lin, one of three grand prize winners of a Honeywell Canadian Futurist Award.

Ping is in the class of Eng Sci 8T5 in the Computer Science Option. The essay she submitted was selected from 64 entries which came from across Canada. The contestants were asked to predict technological developments in a certain area (of their choice) over the next 25 years. Ping chose as subject the realm of advances in software development and systems they will spawn. Included in the essay was a forecast of the impact of those changes on society. She predicted positive effects, including better utilization of the earth's natural resources and human creative talents.

Despite the effort she must have expended in producing this winning essay, Ping has had time for other things. This year she has been involved in the Eng Sci club and in 1982-83 she initiated a petition which protested against inadequate computer facilities for engineering students. As an organizer of a much needed student outcry and possibly a prophet (in her essay), Ping is deserving of praise.



Record Attempt Scheduled for March

Centennial Bike Report

Gus Rinella and
Leslie Peer

Last summer a small group of dedicated students began to design the most ambitious Centennial project. They are working on a tricycle that will attempt to break the world land speed record for human powered vehicles (the current record is over 62 mph).

Three design groups were formed last fall that would be responsible for aerodynamics, mechanical devices and electrical devices and instrumentation. Recently a group to study the ergonomics of the vehicle and to prepare a training schedule for the riders was formed. The members of these groups meet formally once a month with more frequent, less formal brainstorming sessions.

The results of these effort are now becoming evident. The mechanical group has finalized the design of a novel, linear drive system that eliminates energy losses due to chain flexing and the 'dead spot' in the pedal stroke. They are now entering the final stages of design for the frame before it undergoes finite element analysis to reduce its weight. The electrical and instrumentation group has designed an on-board heart rate monitor that stores its data in a microcomputer that will be hooked up to devices to measure speed and acceleration and strain on the vehicle frame. Provision will be made to broadcast this data to a base station while the bike is tested in addition to the downloading of data after a test is completed. The aerodynamics group has spent the spring in the wind tunnels as this project has become an assignment in an aerospace course. We expect that a prototype body shell will be ready at the end of April. The ergonomics group has just been formed so there is lots of room for your help. Ergonomics is the study of efficiency of people and their working environment. This, no matter what the other clowns on the team tell you, is the most important part of the design. Ergonomics is a field that most people in this faculty know very little about (unless of course they are in Industrial). Efficiency is the name of the game. Our mission is to maximize the efficiency of the human engine and the energy transfer mechanisms it comes into contact with. We have to make the best of the space the aero boys (and girls) give us, the best of the frame the mechs give us and last but not least we recruit, train and show the drivers the little space they have to fit into.

This is your chance to break into a new field. Ergonomics is tied very closely to physiology and biomechanics. You don't have to be a jock, or think like one, and it helps if you know how to be lazy. You do have to be prepared to try something very challenging and completely new. If you want to join this group, talk to Les Peer.

As you can see there is still no bike yet and no riders have been selected. This is where you come in. We need people to help finish the design and prepare the plans. We need people to acquire materials and assemble the parts into the finished bike. We need riders to try to break this record. In other words, we need you! The bike will be built this summer so why don't you come out for some good times and wrenching as we put it together. Several people have inquired as to when riders would be needed for the bike, well the time is now! The ergonomics group will begin training riders this summer in preparation for the record attempt next March.

If you are at all interested, please leave your name, phone number and what you would like to do in the Centennial mailbox in the Eng Soc (SFB670) or leave a message with Ella at 978-2917. You can even bother the project coordinator, Gus Rinella — he's the rotund fellow that wears the black U of T jacker with SKULE on the arm (the jacket was purchased before the trademark). See you this summer!

Letter to the Editor

In this year's SAC elections, for the Engineering Constituency, a tie occurred for the sixth and final spot on the Board of Directors. Subsequently, a by-election will be held to decide who will be the sixth representative for Engineering on the SAC Board.

We, the undersigned, would like to endorse the candidacy of Mr. Dave Gropp for the position. For dedicated, enthusiastic, and imaginative yet realistic and practical representation, there is only one choice. We express complete support for Dave Gropp and urge the students of Engineering to do the same in the upcoming by-election.

Allan Chan
Chem 8T6
Tony Kasper
MMS 8T6

Designers Visit to Waterloo Worthwhile

Ontario Engineering Design

Introduction by
Lewis Kaiserseder

The fifth annual Ontario Engineering Design Competition (OEDC) was held March 9th through 11th at the University of Waterloo. The OEDC is one of the few extra-curricular activities that actually involves engineering. It is one of the few opportunities where students can creatively apply what they have learned to a real life situation.

Engineering design is a fascinating process. It involves a procedure of synthesis, as well as the use of analysis. The engineering curriculum is composed mostly of analysis; learning to determine properties and behaviour of defined physical systems. Few courses teach the process of synthesis, where a physical system is designed to operate with a predetermined behaviour. Looking at the world around us, we can appreciate the importance of design. From paper clips to computers, homes to industrial plants, much of what modern man needs and uses was pre-conceived through the process of design synthesis.

The OEDC has four categories. The Entrepreneurial Design category is a competition for producing marketable designs or products not presently originating in Canada. Difficulty of the problem chosen and originality of the design are the two main judging criteria. The design must be technically feasible, and it is very important that the entry is readily marketable. Presentation is also judged.

In the Corporate Design category, several corporate sponsors, such as Ontario Hydro and Du Pont Canada, submit actual design problems they have, usually to improve an existing design or process. Contestants choose from a list of several problems and work on synthesizing a solution.

The Editorial Communications category is an opportunity for contestants to carefully analyze a current socio-technical issue. A point of view, based on examination of facts, is presented.

Engineers are often faced with the task of explaining complex subjects and situations to those who do not have a background in that subject. The Explanatory Communications category tests the students ability to communicate clearly. It is an attempt to exercise the human skills necessary in engineering design.

The event was hosted at U of T in 1982 and at Queen's University in 1983. The general organization of the OEDC has always been first class, and the competition makes it one of the most exciting events of each year. Judges are prominent engineers from academia, industry and research.

In addition to the OEDC, four new competitions will be established for 1985, widening the scope to cover all of Canada. The winning contestants from the Western, Ontario, Quebec and Atlantic regions will then compete in the Canadian Engineering Design Competition (CEDC).

Participation by U of T students was low this year. There were only four entries winning two awards, compared with seventeen entries and six awards in 1982.

Next year the OEDC will be held at McMaster University in Hamilton. Any interested students would do well to remember that it is never too early to start 'brainstorming' for their projects, as the competition is very keen. Also, this year's Engineering Society would be wise to consider a proposal to host the competition in 1986. With renewed interest for 1985, students can compete to display some of the engineering excellence for which U of T is renowned.

Entrepreneurial Design Special Prize Winner

Ultralight Aircraft

Jeff Hall, Scot Morrison Tom Otvos, Rod Williams Eng Sci 8T4

The Wraith (as the design was known) is an ultralight aircraft, and was designed to be a low cost alternative to the other ultralights currently available on the market. Performance-wise, it can outperform many of the more popular ultralights, such as the Lazair, or the Quicksilver, and yet its main attraction is that it can be made for only $3,100, compared to the $6,000 or more that one would pay for any other ultralight. This savings was obtained by keeping the desing very simple and leaving it to the builder to acquire his or her own parts, as opposed to supplying prefabricated parts like the other manufacturers do. In this way, no overhead due to manufacturing is incurred by the designers and the builder has a plane that is essentially at cost.

The results of the competition were that the Wraith won a special award for technical excellence, but was not awarded the first prize in the Entrepreneurial category because the judges deemed its market potential weak.

Competition: U of T Shines

Explanatory Communication Second Prize

Urban Transit Technology

Eugene Krushelnycky
Elliott Neumann
Ind 8T5

One of the categories in the OEDC is explanatory communications. Eugene Krushelnycky and Elliott Neumann, two 3rd year industrial engineering students entered this category with a presentation concerning urban transit technology.

Among the topics that were covered were personal transit systems, linear induction and maglev. The presentation was in audio-visual form. The excellence of this presentation earned the participants second place and many commendations from judges and audience alike.

Entrepreneurial Design

Chemical Heat Pumps

Lewis Kaiserseder
Mech 8T4

Chemical heat pumps are a new form of heat pump technology, showing promise as being a major entry to the field of energy conservation in the heating and cooling of buildings. Chemical heat pumps have inherent energy storage properties that make them ideal for use in solar applications.

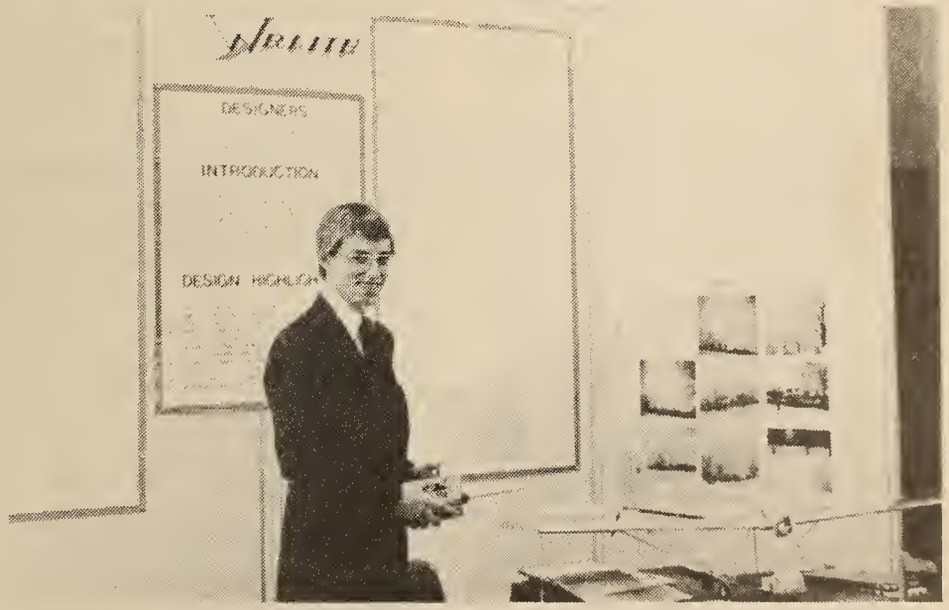
Chemical heat pumps differ from conventional heat pumps in that they do not require a compressor to operate. Energy is input as heat rather than the electrical energy required to drive a compressor. Chemical heat pumps operate with a lower coefficient of performance (C.O.P.) than vapour compression heat pumps; about 1.6 compared to 3.0. However, fossil fuel costs are typically 1/2 to 1/3 that of electricity costs, per unit of energy. Thus the chemical heat pump could be an economically viable alternative. Another perspective is to consider that typical efficiencies of coal or gas fired generating stations are on the order of 33%. If the electricity is used to drive a vapour compression heat pump with a C.O.P. of 3, no net energy is saved over using the fossil fuel directly.

Solar energy may be used as the heat source required to drive the heat pump. Because the chemical heat pump operates with a C.O.P. greater than one, the area requirements for solar collectors are reduced. For instance, a building heating system utilizing a chemical heat pump with a C.O.P. of 1.6 would require only 60% of the collector area needed by a system operating without the heat pump.

In addition, chemical heat pumps have inherent energy storage properties. Diurnal storage systems are possible with 2 to 3 times the energy storage density of conventional thermal storage systems. Seasonal energy storage in also a possibility. These factors combined could change the feasibility of solar heating systems considerably.

The chemical heat pump being designed was tested using two types of reversible chemical reactions. The first to tested was utilize methanol and anhydrous calcium chloride in a solid/gas reaction. Thermodynamic cycles have been calculated for a wide range of operating conditions. The major design problems were in developing effective, low cost heat exchangers.

The second system to be tested utilized sulphuric acid and water in a reversible liquid/gas reaction. The sulphuric acid system has preferable thermodynamic properties to the methanol based system. However, as expected, the corrosiveness of sulphuric acid made heat transfer and fluid circuit design both challenging and difficult.



Jeff Hall demonstrates the ultralight Wraith

Engineering Society: What It

The Society is headed by the President. He or she is responsible for representing engineering students in almost all possible forms. The Society has two Vice Presidents. One is the Vice President: Administration. This year, Lynette Fairweather (Mech 8T5) is responsible for the administration of the Society and the Stores, including writing the annual budgets. The other is the Vice President: Activities. This person is responsible for all society activities and committees. The treasurer, this year Richard Fofana (Geo 8T7), and the secretary, this year Suzanne Rochford (Ind 8T7), are responsible for the records of the society. The treasurer maintains the books and the secretary keeps the minutes and membership lists. These five people are the executive officers of the society.

The five officers along with the Club Chairmen (Mech Club, Elec Club, etc.), the Standing Committee Chairmen (Communications, Fourth Year, etc.) and the President of the Engineering Athletic Association make up the Society Executive. It meets once every month.

The executive along with the two class reps from every class and the six engineering SAC reps make up the Engineering Society Council, which meets once every month during the school year. The Society has a number of committees known as standing committees. These committees are chaired by a member of the Society council (i.e. a class rep or SAC rep) and any engineering student may be a member of that committee. The chairman is elected by the committee and the choice is then ratified by Council. The standing committees and their duties are listed below.

STANDING COMMITTEES
The chairmen of these committees become members of the Society Executive.

BLUE & GOLD: The Blue & Gold Committee is responsible for Society spirit. They co-ordinate the activities of the LGMB, Chariot Race, Godiva Week and Homecoming.

COMMUNICATIONS: The Communications Committee is responsible for all Society publications including the Toike, Cannon, Yearbook, Handbook and Calendar.

FOURTH YEAR: This committee shall consist of all the club chairmen. It shall be responsible for the Grad Ball, Kipling Ritual and grad photos. The chairmen should be in fourth year.

PROFESSIONAL DEVELOPMENT Shall be responsible for co-ordination of Society participation in such conferences as the APEO, RESSA and CCES conference. It shall also be responsible for creating awareness of the engineering profession.

SAC: The SAC committee shall consist of all Engineering SAC reps and the chairman shall be a SAC rep.

SOCIAL: The Social Committee shall co-ordinate all Society social events including Cannonball and Oktoberfest.

WOMEN'S: The Women's Committee shall co-ordinate events of special interest to women in engineering. This includes the Women's Dinner and the Wine & Cheese Party and perhaps women engineer speakers.

EMPLOYMENT: This committee shall act as a liaison between the engineering students and the Career Counselling and Placement Centre.

HIGH SCHOOL LIAISON: This committee shall act as liaison between engineering students and faculty members in charge of high school liaison. They shall be reponsible for aiding the faculty with increasing high school students' awareness of engineering at U of T.

ARCHIVES: This committee is responsible for accessing and updating the historical data on our faculty kept in the archives.

SPECIAL COMMITTEES: These committees have to be set up every year. Their chairmen do not become members of the Executive Committee. They have included such committees as the Centennial Committee, the Ontario Engineering Design Competition Committee, the CCES Committee, and the Shinerama Committee plus the Orientation Committee.

There will be a Full Council Meeting on Wednesday, April 11 at 5:00 pm in GB202. The full council meeting will be followed by a brief executive meeting.

During the week of April 2, elections for Chairmen of the Standing Committees will be held. Any member of Council can be a chairman of one council committee. Elections will take place at the day and time listed below in SFB740. Any engineering student interested in becoming a member of the committee should attend that committee's meeting to elect a chairman and learn more of what is going on. Any council member interested in being a chairman of a committee should attend the committee meeting and run for the position.

Upcoming meetings are:

Wednesday, April 4
12:00 Archives
1:00 Social

Thursday, April 5
12:00 Prof. Development
1:00 Women's

Friday, April 6
12:00 High School Liaison
1:00 Employment

Is, What You Can Do

Any student interested in running for an appointed position should submit an application to me as soon as possible before 5 PM Tues. April 10, 1984 indicating the position desired and attend the full council meeting on Wed. Apr. 11 to run for the position. The appointed positions are:
Pub Manager (2)
Publications Manager
Stores Manager
Toike Editor
Cannon Editor
Yearbook Editor
Handbook Editor
Calendar Editor
Regional Editor for Project Magazine
Skule™ Nite Producer
Archivist

Lynette Fairweather
Vice-President Administration

Movie Well Received

I would like to take this opportunity to thank all who attended the March 27 showing of *Not a Love Story*. I am pleased to say that there was a full house — people were even sitting on the floor. Following the film, the discussion gave all a chance to voice their reactions and to pursue the implications of pornography. My appreciation should be extended to Paul Shindman, Barry Levine, Kim Harkness and Ella Lund-Thomsen who were invaluable in getting this event off the ground.

P.S. For those of you who were unable to see the movie this time, look for showings around campus and possibly another screening sponsored by the Engineering Society in the fall.

Helen Humphrey
Women's Committee Chairman
1983-84

SAC Wrap-up

Congratulations to the new engineering SAC directors: Helen Humphrey, Bob Seeman, Mary Svazic, Lee Verhoeff and Bernard Wong. (The sixth position will be decided in a runoff election between David Gropp and Rob Cohen this Friday, April 6.) If their first SAC meeting was an indication of their future performance, the engineers can count on vocal representation. Bernard was chosen as the SAC Communications Commissioner and Helen was chosen as Women's Commissioner.

I would like to take this opportunity to thank my fellow directors at SAC this year. Thanks to Maria, Nick, Tony, Paul and Peter for making engineering SAC directors an effective team this past year. Without this teamwork we would not have gained the reputation of being one of the best represented faculties at SAC (nor would we have won the SACAC award).

I thoroughly enjoyed representing engineers at SAC this year and I hope the new directors will feel the same way one year from now.

Marc Seeman
Outgoing Executive SAC Rep

Bovey Submission Planned

What purpose should our universities be serving and how does engineering fit into the scheme of things? In the next few months, the Engineering Society will be attempting to compile an answer to that question. The aim will be to find an answer that is representative of the feelings of the students in this Faculty.

Yet another government commission has been in the news lately, but this one strikes much closer to home. Its official title is the Commission on the Future Development of the Universities of Ontario though it is commonly referred to as the Bovey Commission. This committee has requested the submission of briefs from all interested parties and as engineering students we should be very interested. The sweeping mandate of the Commission allows it to make recommendations on fees, enrolment and even the optimal number of engineering schools in the province.

Of particular note is this clause in the Commission's terms of reference, "include consideration of . . . appropriate tuition fee policies that reflect on the one hand accessibility policies recommended by the Commission and on the other equitable levels of student contribution with respect to the overall cost of the university system." Students will no doubt wish to comment on a reasonable tuition level as a compromise between the two demands of easy access for all suitable candidates and the need for students to bear more of the cost burden.

The preparation of a brief outlining the U of T engineering students' position is a major task. It is likely to be undertaken over the summer as one of the priorities of the new, soon-to-be-elected, Academic Affairs Committee Chairman (Executive Faculty Council Representative) Any opinions, suggestions or assistance will be welcomed — don't forget, it's your future!

Ninety-nine Years & Counting

Gus Rinella
Centennial Committee Chairman

Nineteen eighty four has a special significance to engineers, it is the year before the Centennial of Canada's oldest engineering organization — the University of Toronto Engineering Society. The Centennial Committee has spent the past two years planning some events, spreading the word with articles and displays and starting the Skule™ trivia quiz.

This summer the Centennial Committee will be putting together two fall events — part of Orientation and a special Homecoming for engineers. If you are interested in helping f!rosh get acquainted with Skule™ in a special way or if you want to participate in the Skule™ Birthday Party at Homecoming, you will want to get involved with this group. Do so by leaving a note in the Centennial mailbox or calling the Engineering Society at 978-2917. Don't forget to attend the next meeting, Monday, April 9 at 1:00 in the Society offices (SFB670).

The winner of last month's trivia quiz is Suzanne Rochford, the recently elected Eng Soc Secretary. She answered nine questions out of ten correctly, missing just the first one. The majority of answers may be found in the Handbook, the Yearbook and on photographs or monuments around the engineering buildings. We even printed some answers on page 10 of the same *Cannon*! The series of quizzes will continue next fall. Until then, here are the correct responses for March's contest:

1) The Transactions of the Engineering Society became part of the Yearbook in 1920.
2) The first undergraduate president of the Engineering Society was H.E.T. Haultain. John Galbraith was the first president of the Society while he was the Principal of SPS in 1885.
3) In the roaring Twenties an engineering caper made the first Skule™ cannon roar in front of Hart House.
4) In the Engineer's Hymn, Joe Skule™ asserts that the Little Red Schoolhouse was 94 years old when it was destroyed to make room for the Medical Sciences Building. This was the answer to the question that was posed. In fact, the building was 88 years old, having been built in 1878 and torn down in 1966 (check the painting in Ella's office).
5) Believe it or not, the LGMB actually missed the opening of Canada's Wonderland. Mind you, the Bnad is always in Wonderland.
6) F!rosh were required to wear green ties during Orientation. (Hmmm . . . maybe next year).
7) The first record of a *Toike Oike* was as an election flyer in 1911. There is evidence to show that a *Toike Oike* was circulated in 1906, also as an election flyer and that is why there was a discrepancy with the answers from the previous quiz.
8) It should have been obvious that the Meds could only overpower the Cannon guard while they were being drained of blood in 1959.
9) The Engineering Society elections were held in March. The rest of the events were part of the Winter Carnival.
10) Yes, Virginia, all of these clubs were part of the Engineering Society at one time or another.

Better luck next year and congratulations Suzanne!

SUDS and the EAA (a dynamic duo) present

The First Annual Engineering Bowling Tournament

April 6 at 10 pm at Dufferin Lanes (10 pin)

Start your warm-up with a few beers at SUDS then it's off to the lanes! Teams must consist of 4 players and space is limited, so enter now (in the EAA Tournaments mailbox).

Only $5 per person for a night of fun

Students Run Fruitful Meeting

Quite frequently, meetings dealing with important policy decisions occur in this Faculty unbeknownst to students. Occasionally, student representatives are invited to listen and comment on the predicted effects of a change. Rarely, a student group arranges such a meeting in order to discuss their concerns. *The Cannon* had an opportunity to attend one of these rare events early in March.

The student group involved was the Electrical Club and two other groups attended — faculty representatives and National Semiconductor (NSC) representatives. The intention was to discuss student perception of problems with the Engineering Computing Facility and possible future improvements to the facility with the help of NSC. In addition, discussion was expected on other types of feasible projects that could be joint efforts of the Electrical Engineering Department and NSC.

The students began their presentation with a description of current patterns on ECF. The major complaint was very high load factors, the insufficient numbers of terminals and student inaccessibility to operating system details due to security precautions. It was stressed that industry is looking for engineers with in-depth knowledge of operating systems, knowledge that is presently difficult to acquire at U of T. Their intention was to discover the feasibility of implementing a star network of intelligent terminals with the VAXs as central nodes. Such a system would allow system security to be maintained and permit student access to the technical knowledge that they require.

From the responses of the faculty members, it became evident that ECF was indeed intending to evolve into a distributed network system. Professor Snelgrove of Electrical Engineering reported on this policy intention and on a prototype work station being developed right here at U of T in the Computer Systems Research Group. He affirmed that a distributed system will eventually be the most economical alternative for ECF, an important consideration in these times of restraint and underfunding.

Two difficulties are foreseen during the transition period. A shortage of funds and time will prevent the desired improvements from occurring before September. Professor Snelgrove asked the NSC representatives what assistance they could provide in helping CSRG to test and perfect their new system at the minimum possible cost. The second problem will be the difficulties in getting the system debugged once it is in place, since unpredictable errors always appear.

The representatives for National Semiconductor were very interested in forming co-operative agreements with U of T. Being a hardware oriented company, they are not able to provide software support or resources; however, arrangements can be made for an educational institution such as U of T to acquire parts at significantly discounted prices. Individual chips as well as units such as memory boards, disk controllers and I/O cards could be put to valuable use here. These components could be very useful in research and development projects and the construction of the distributed network system.

Another very interesting opportunity offered to students by NSC was mentioned as an aside. Any student is welcome to submit a proposal for developing a new application of an NSC device. If the idea seems reasonable and worthwhile, the company will donate the needed parts in exchange for the writing of an 'applications note' (upon completion of the project) that they may publish in their data books. The projects need not involve the newest product lines and the Electrical Department is willing to allow students lab space to work on these designs. This offer is a great chance for a student to gain useful practical experience at a time when there is a shortage of summer jobs. Also, third year students may consider beginning a thesis with the help of this program.

Overall, encouraging steps towards building a co-operative relationship between U of T and NSC were made at the meeting. It is heartening to see such promising results from a student-initiated event. The tentative plans that were made should benefit students directly and also improve the research environment, giving greater potential for learning.

The Party Awaits

Centennial Committee Meeting

Monday, April 9
1:30 pm in SFB670

Plans for Orientation and Homecoming to be discussed.

President's Message

Bill Hollings
Eng Soc President

Hello. Finally hello.

The prevailing circumstances have allowed me a whole day as President before being required to write this article. I apologize beforehand for any missing data (lack of parity, for you Elecs out there).

First and foremost, I want to congratulate all the newly elected members of the Engineering Society Council. Those of you who I have met give me great confidence in next year's council. I would also like to thank Bruce Christie for giving me the run of my life. These last three weeks have certainly been humbling, if not frightening and I will not soon forget them.

Okay, you may ask, so why am I babbling on like this? What, in fact, is the purpose of said babbling? Those of you who have read a President's Message before will know that this space is for me to tell you exactly what I, or Lynette, or Luis, or in fact anybody connected with the Eng Soc has been up to. Those of you who have not read a Prezmess (for you Newspeak fans) before — well, now you know.

A lot is coming up in the few weeks before the exams and then into the spring. For instance, the beer fridge has to be stocked. I will also be talking to the guys at ECF shortly about what will be happening with next year's computing facility. From what I have heard, it is hoped that another VAX will be purchased and an experimental distributed network system will be initiated. We will also be setting up a general Eng Soc account so we can advertise what we have been up to, or what events are upcoming and you will be able to respond to us with suggestions and abundant enthusiasm.

After checking the state of the beer fridge, I would like to go talk with some of the new *Varsity* staff soon, to make sure things start off on the right foot this year.

Our report to the government's Bovey Commission on University Organization will have to be prepared this spring. If anyone is interested in helping to prepare this brief, don't hesitate to contact me in the Eng Soc.

Summer is the time to restock the fridge and to organize orientation for next September. Keep your eyes and ears open for any word from Luis in the next few weeks.

Later on, in January, Dave Stubbings and the boys will be holding a mega-CCES conference. This will no doubt mesh with our centennial celebrations. Please see Gus Rinella and the Centennial Committee if you are interested in helping to organize the best anniversary party this arm of the galaxy has ever seen.

As I always say, one mark of a good President is that he knows when to stop babbling, so I will sign off now. Remember, this year above all others, stay involved!

SPRING SPECIALS AT THE STORES

Parker Rolling Ball Pens	*$2.00*
Parker Jotter Pens	*$3.00*
Exam Reprints	*$3.00*
Pentel Rolling Ball Pens	*33¢*
BIC Pens: Medium	*20¢*
Fine	*28¢*
Extra Fine	*43¢*
Mars Graphic Brush Markers	*28¢*
3-Hole Punch	*$1.95*
Engineering Notebooks	*3 for $3.50*
Engineering T-Shirts	*$3.00*

Thanks for your patronage all year

Class of 8T4 To Make History

Barry Levine
President
Class of 8T4

Hans Schade
V.P. Fundraising

The permanent executive of the class of 8T4 is about to embark on a new venture. All graduating fourth year students are soon to become members of the Engineering Alumni Association. Through your own participation and a little help from the executive, the class of 8T4 can emerge as one of the greatest graduating classes.

The class of 8T4 will have many social events (eg. reunions) to look forward to in the coming years, but for now, there is a more serious issue at hand. Graduating students have a responsibility to their university as well as society. Chances are pretty good that you'll be donating money to a variety of charities. Why not help out the old alma mater? After all, while you've been here, you've only been responsible for a small fraction of the cost of your university education. Several Canadian private schools and all American universities rely on donations from alumni to survive—and similar donations could help preserve (and improve) the reputation of our university.

As those students who helped with the alumni phone campaign can attest, it is extremely difficult to reach all alumni for donations. The class of 8T4 can be the first to get the ball rolling with an all new 'pledge program'. Future classes will have something to measure up to.

There are several facts that should be presented here. First, as of 1984, you will no longer be able to claim a $100 tax deduction for donations without receipts. The class of 8T4 executive would like to suggest a pledge of $300 to be donated (as you choose) over the years 1985,1986 and 1987. This will give graduating students an opportunity to get settled (i.e. get hired) before they are required to make a donation. Pledge cards will be made available to fourth year students this week. They should be returned to the ex-club chairmen or to Malcolm McGrath (GB158). Additionally, funds may be specifically earmarked for specific divisions.

Now is the best time to begin supporting your Skule™.

Model Bridge Contest Results

Don Grandy
UTCSCE Treasurer

Since its beginnings, the Model Bridge Building Competition has undergone a number of administrative changes. The most recent change has resulted from the elimination of the CED 101 course from the first year curriculum. At present the competition is open to all engineering and wood science students.

To participate in such an event a fair amount of time is required, but the model bridge design and construction can be both challenging and rewarding. Since there are no credits given to student participants, except for those in wood science, there appears to be little initiative to participate. Despite all these drawbacks, this year's competition proceeded as planned.

From the initial group of four teams showing interest, the winner emerged. Congratulations are extended to Walter Babience, from first year Engineering, for his successful participation. Walter's uniquely designed bridge, which is on display in the Bridge Competition Display Case in the Galbraith Building, was constructed out of Balsa wood and weighed only 150 grams. At failure it attained a maximum load to weight ratio of 2118.

Future Looks Bright

In the future, I hope we can definitely look forward to an inter-university Ontario Region Competition. Although letters were sent in attempt to establish a regional competition this year, little response was received from other universities. Prospects look much brighter for the future following recent Ontario Regional CSCE Student Section Conference. At the meeting, sponsored by the University of Toronto, the bridge matter was raised and genuine interest was generated, supportive of the contest. We look forward to active participation by neighbouring universities.

I would like to personally thank all those who helped and participated in the competition, for their efforts are much appreciated and will undoubtedly add to their professional development.

Sports Year Ends Well

Well sports fans, it is that ominous time again, the end of the season. Time to hang up the skates, or shoes, or skis, or maybe all three. The time when many curse their losses and vow to triumph next year while a few bask in the glory of victory.

For engineering teams, this past season proved to be very rewarding. Within the last few weeks, no fewer than four Skule™ teams won championships and several others lost heartbreakers along the way.

First for the near misses.

A fan attending the men's senior hockey quarter-finals wondered aloud if he had made a wrong turn and ended up watching an Olympic marathon (or at least a skate-a-thon). It was an understandable mistake. An amazing total of 8 periods of hockey (3 regulation and 5 overtime periods) were played before St. Mike's defeated the engineers 6-5.

Though there was only one overtime period, the women's hockey team were equally disappointed with their defeat. Playing first place Pharmacy in the semi-finals, the team rallied to tie the score (with an exciting goal on a penalty shot) at the end of the third period. But their hopes were dashed soon afterward. With the vast improvement seen this season, there is great potential here for next year.

The Skule™ Smashers, an entry in women's Division III Volleyball came sooo close to winning the championship. After a season aimed at having fun with a bit of success mixed in, they played their way to the finals, an excellent showing.

But, enough about the losing teams, there are many winners worthy of celebration.

The men's waterpolo team finally lived to the boasts they had been making. The finals against Scarborough were close for a while, but the last game was a romp with the final score of 12-6, proving engineering superiority. Their loss in the second game was 'carefully planned' to create more interest and suspense.

In men's Division II basketball, the engineers followed a great regular season with even better playoff play. The last few games were close and exciting and beyond all that, we won!

Engineering superiority was also demonstrated by the Chem Eng team in men's Division II volleyball. Once the double elimination playoff set-up gave them a second chance, they didn't look back. Oh, the thrill of beating Phys. Ed. in the finals!

After four long years of trying, the women's Division II volleyball team finally got their act together. The final match against PHE went to the full five games, causing much panic and nail-biting. But the loyal fans stayed to cheer and the coach just kept pacing until Skule™ emerged victorious.

The athletes on these sports teams were part of the group who were honoured at the S-Dance on March 23. Congratulations are extended to all the award winners that night. One of the highlights of the evening was the presentation of a new trophy by Oli Cajanek who was E.A.A. President in 1967. An avid rugby and soccer player, Cajanek was impressed by the number of female participants when he attended the S-Dance last March. This participation inspired him to donate an award for the most valuable player of the women's soccer team (there aren't enough female athletes to start decreasing the numbers through injuries with a women's rugby team.)

In all, the year was a successful and enjoyable one for our athletes. The increasing interest in tournaments held between class teams should cause a shift in the E.A.A.'s emphasis next year. Don't miss the last tournament of 1983-84, an evening of bowling on April 6. (See the ad elsewhere in this issue for details.)

Oli Cajanek presents the new trophy that he donated

P.S. The Alumni Athlete of the Month for March is Tom Chesser. Tom is an outstanding member of the Senior Hockey team and was particularly valuable in the recent tournaments at Guelph and Queen's. A warm thank you to the Engineering Alumni Association for their support of engineering athletics this year. (Unfortunately a photo was not available).

ar·ma·dil·lo \ˌär-mə-ˈdil-(ˌ)ō\ *n, pl* **armadillos** [Sp, fr. dim. of *armado* armed one, fr. L *armatus*] : any of several burrowing chiefly nocturnal edentate mammals (family Dasypodidae) of warm parts of the Americas having body and head encased in an armor of small bony plates in which many of them can curl up into a ball when attacked

(a Synonym for a popular Canadian beer.)